HABS No. NY-6334-F

KYKUIT, JAPANESE SHRINE John D. Rockefeller Sr. Estate 200 Lake Road Pocantico Hills Westchester New York

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

REDUCED COPIES OF MEASURED & INTERPRETIVE DRAWINGS

HISTORIC AMERICAN BUILDINGS SURVEY
National Park Service
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HISTORIC AMERICAN BUILDING SURVEY

KYKUIT, JAPANESE TEAHOUSE (JAPANESE SHRINE)

PART I: HISTORICAL INFORMATION

A. Physical History

- 1. **Date of Erection:** The Japanese teahouse at Pocantico Hills was planned during the year 1908 and built between 1908 and 1910. A contract to construct the teahouse from plans he had created was made with T. Uyeda, a Japanese designer and builder, in December, 1908. Construction began on December 4, 1908. By October, 1909 the bulk of the construction must have been completed since John D. Rockefeller Jr. provided a letter of reference to Mr. Uyeda on October 12, 1909, describing him as the "designer and builder of the teahouse", indicating that his product is "perfect". The exact date of completion is not known, but records of the period reveal that on August 2, 1910 John D. Rockefeller, Jr. wrote to Mr. Mori of Yamanaka & Co. in New York City, thanking him for supplying the tea served at a tea ceremony commemorating the completion of the Japanese teahouse and representing its first use. From this correspondence it can be deduced that the teahouse was completed on or before the end of July, 1910.
- 2. **Architect:** The architect of record for all of the gardens at Kykuit is William Welles Bosworth, an M.I.T. graduate who had also studied at L'École des Beaux-Arts in Paris. Bosworth was hired to design the gardens, Orangerie, alterations to the Coach Barn as well as the 1909-11 modifications to Kykuit. He worked closely with his client, John D. Rockefeller Jr., who was his father's primary representative in the construction of the estate. Bosworth is best-known for his design of the Cambridge campus of M.I.T., the A.T. &T. building in Manhattan and for his participation in the 1920s restoration of the Palace of Versailles in France, for which he received the French Legion of Honor. Forty years of correspondence (1908-49) among John D. Rockefeller Jr., Bosworth, members of Bosworth's staff and Mr. Uyeda reveal, however, that both Bosworth and Rockefeller Jr. acknowledged Mr. T. Uyeda as the sole designer of the Japanese teahouse. There are multiple references alluding to Uyeda as the "designer" of the building and many alluding to his production of the drawings from which the teahouse

¹ N.C. Ailes, correspondence to J.D. Rockefeller, Jr., 27 January 1909, Collection III, Record group 2, Series 1, Box 36, Folder 348. Rockefeller Archive Center (Sleepy Hollow, New York).

² J.D. Rockefeller Jr., correspondence to T. Uyeda, 12 October 1909, Collection III, Record Group 2, Series I, Box 36, Folder 348, Rockefeller Archive Center (Sleepy Hollow, New York).

³ J.D. Rockefeller Jr., correspondence to Mr. Mori, 2 August 1910, Collection III, Record Group 2, Series I, Box 36, Folders 348 and 349, Rockefeller Archive Center (Sleepy Hollow, New York).

⁴ Robert Dalzell Jr. and Lee Baldwin Dalzell, *The House the Rockefellers Built* (New York: Henry Holt and Company, 2007), 85-87; Ann Rockefeller Roberts, Kykuit the Rockefeller Family Home (New York: Abbeville Press, 1998), 143.

was constructed. Purchase orders and correspondence confirm that he personally ordered the materials that were used in its construction, both in the United States and in Japan. Archival records indicate that he received and distributed wages to his construction staff and selected his staff members. So, although secondary sources have sometimes described Mr. Uyeda as a carpenter or a gardener, this clearly was not the case. Contemporary records definitely indicate that Mr. Uyeda was an architectural professional, deeply respected by both Bosworth and John D. Rockefeller Jr. Bosworth refers to him as "a very fine artist in this type of thing"... "such a specialist" and Rockefeller Jr. so respected his opinion that he ordered expensive work on the teahouse's 1922 copper roof replacement torn down and reconstructed on Uyeda's recommendation.⁵

The only other designer or architect to work on the Japanese teahouse was a Mr. Matsui, hired to design the 1922 copper roof replacement after Mr. Uyeda's bid for the work was rejected as too high. Mr. Matsui, described as an architect from Japan who had created designs for the Emperor, produced drawings for the roof that built upon but altered the original drawings prepared by Uyeda. The firm of Charles H. Tyler actually constructed the new roof, and then reconstructed it when Rockefeller Jr. ordered it redone under the supervision of Mr. Uyeda whom he ordered retained as "consultant architect or whatever he wishes to be called."

3. **Original and subsequent owners, occupants, uses:** The teahouse was built as part of the gardens of the country estate of John D. Rockefeller, who established Standard Oil and was at that time the wealthiest man in the United States. Rockefeller Sr., his wife Laura, his son John D. Rockefeller Jr., his son's wife Abby Aldrich Rockefeller, and the younger Rockefellers' six children all lived at the estate, which was called Kykuit. Both Rockefeller Sr. and Rockefeller Jr. also had other residences but the entire family viewed Kykuit as their "home."

With the death of John D. Rockefeller Sr. in 1937 Kykuit became the property of John D. Rockefeller Jr. who owned the property until his death in 1960. Upon his death Kykuit became the property of four of his five sons: John D. 3rd, Nelson, Laurance, and David. Winthrop, the fifth son, gave up his interest in Kykuit as did their sister Abby. They jointly held the property and used it as a family residence enjoyed by themselves, their children and their grandchildren throughout the 1960s. During the 1970s John D. III, Winthrop and Nelson died; Nelson, who died in 1979, left his share of Kykuit to the National Trust for Historic Preservation. This bequest initiated a twelve year period of

⁵ J.D. Rockefeller Jr., T. Uyeda and William Welles Bosworth, correspondence, 27 January 1909, 2 July 1909, 5 October 1909, 12 October 1909, 5 April 1917, 1 August 1918, 27 August 1918 10 September 1918, 2 November 1918, 7 November 1918, 20 November 1918, 24 July 1918, 2 February 1919, 10 February 1919, 18 April 1919, 23 April 1919, 19 February 1921, 22 August 1922, 28 February 1922, 12 June 1922, 16 June 1922, 29 June 1922, 15 July 1922, 20 June 1923, 25 June 1923, 3 December 1923, 15 April 1924, 6 June 1949, Collection III, Record Group 2, Series I, Box 36, Folder 348 and 349, Rockefeller Archive Center (Sleepy Hollow, New York).

⁶ J.D. Rockefeller Jr., correspondence to Charles Heydt, Esq., 15 July 1922, Collection III, Record Group 2, Series I, Box 36, Folder 349, Rockefeller Archive Center (Sleepy Hollow, New York).

⁷ Dalzell and Dalzell, *The House the Rockefellers Built*, 9-10.

⁸ Ann Rockefeller Roberts, Mary Louise Pierson, and Cynthia Altman, *Kykuit, the Rockefeller Family Home* (New York, Abbeville Press, 1998), 5.

⁹ Roberts, Kykuit, the Rockefeller Family Home, 29.

protracted negotiation regarding the division of the property between the family and the Trust which culminated in a 1991 agreement, the terms of which deeded the main house at Kykuit and the surrounding gardens, to the Trust. ¹⁰ In 2007 the Japanese teahouse also was deeded to the National Trust but continued to be maintained by David until 2010 when the Rockefeller Brothers Fund took over management services of that area. Until 2007, the teahouse had been used by the family as part of the family home providing a setting for occasional events, informal socialization and aesthetic enjoyment.

4. **Builder, contractor, suppliers:** The Japanese teahouse was built by T. Uyeda and a staff of unnamed helpers, carpenters, masons, plumbers and painters during 1908, 1909 and 1910. He was, according to available records, the sole contractor involved in its construction. There were several major suppliers for the materials used in the building. The mahogany which is used for the structural elements of the building, the screen frames and much of the trim work was supplied by an unnamed New York furniture manufacturer, chosen because lumber mills were not willing to cut the unusual sizes and shapes Mr. Uyeda required. Silk for the shoji screens and various decorative items for the teahouse were obtained from Yamanaka & Company in New York City, purveyors of goods from Japan. Forty pieces of ornamental metal work, fourteen tatami mats, silk painted panels for the four interior sliding screens (*fusuma*), fourteen small silk screens and a large painting for an interior recess (*tokonoma*) were purchased in Japan by Mr. Uyeda during a trip he made there in October, 1909. 12

In 1922 the original shingled roof was replaced with copper. The molding of the copper, as well as assembly and construction of the roof, was carried out by the Charles H. Tyler Company of New York City. ¹³ The supplier of the copper sheeting is unnamed in the construction records.

Unfortunately, records of the 1960s relocation of the teahouse to its current location are very limited. The contractors who conducted the relocation and those who constructed the kitchenette/bathroom addition are therefore unknown. However, the project was overseen by David Engel, the landscape architect, with the building addition designed by the consulting architect, George van Geldern.

5. **Original plans and construction:** Although existing records indicate that Mr. Uyeda worked from drawings that he himself created ¹⁴ and which were approved by William Welles Bosworth and John D. Rockefeller Jr. These drawings have not survived. Early photographs of the teahouse and descriptions contemporary to its construction reveal that the structure was sited directly on the edge of the Japanese pond in a setting dominated by blue spruce trees. Two Asian style stone lanterns were placed near the building. The roof was clearly not copper in the original construction; the initial roof is described as being of many layers of cedar shingles, a fact confirmed by an unmeasured sketch

¹⁰ Roberts, Kykuit, the Rockefeller Family Home, 47.

¹¹ N.C. Ailes, correspondence to J.D. Rockefeller, Jr., 27 January 1909, Collection III, Record group 2, Series 1, Box 36, Folder 348, Rockefeller Archive Center (Sleepy Hollow, New York).

¹² J.D. Rockefeller Jr., correspondence to T. Uyeda, 12 October 1909, Collection III, Record Group 2, Series I, Box 36, Folder 348, Rockefeller Archive Center (Sleepy Hollow, New York).

¹³ Robert W. Gumbel (for John D. Rockefeller Jr.), correspondence to Charles H. Tyler, 1 May 1922, Collection III, Record Group 2, Series I, Box 36, Folder 349, Rockefeller Archive Center (Sleepy Hollow, New York).

¹⁴ J.D. Rockefeller Jr., correspondence to N.C. Ailes, 1 February, 1909, Collection III, Record Group 2, Series I, Box 36, Folder 349, Rockefeller Archive Center (Sleepy Hollow, New York).

completed at the time¹⁵ of the later roof replacement as well as early photographs. The veranda, shoji screens, wooden doors (amado) and stucco exterior wall panels are all clearly visible in early views. It does not appear, however, that the shoji screens had rectangular grill work in place in 1912, the year of the earliest available photographs. The porch of the main facade is also present in early views, topped with a curved gable covered with wooden shingles. The mahogany door storage compartment (tobukuro) is also clearly visible in early views of the main façade. A side façade can be seen in early photographs; this side view also displays the shoji screens, amado doors, and stucco wall panels. 16 There are no views of the original back side of the building to which the addition was added in the 1960s, so it is not possible to describe its original plan. There are no drawings or photographs of the original interior of the teahouse. Correspondence related to the construction reveal that the shoji screens originally held silk, rather than rice paper, panels and that the interior space was divided by four sliding screens (fusuma) with painted panels. Purchase orders reveal that the single interior wall not dominated by shoji screens was fitted with a traditional Japanese recessed alcove called a tokonoma in which various decorative items, including a large Japanese painting, were placed. There were shelves in the tokonoma and above it as well. Apparently, based on purchase order entries, some or all of these shelves were originally fitted with doors made of small silk screens. Decorative metal rosettes, 4" x 4", of either brass or copper in the form of either stylized flowers or lions were purchased for interior installation. These were used on structural elements to cover connections and provide decorative interest. 17

6. **Alterations and additions:** The Japanese teahouse has undergone two major alterations during its one hundred year history. The first of these occurred in 1922 when the original roof was removed and replaced by an elaborately ornamented copper hipped and gable roof of traditional Japanese design. This alteration, necessitated by water infiltration of the original cedar shingle roof ¹⁸ was first designed by Mr. Uyeda, who was paid \$300 for the designs he produced. ¹⁹ When his first bid on the construction of the roof came in at more than \$19,000, and he had an unpleasant verbal exchange with John D. Rockefeller Jr., the Bosworth architectural firm identified another Japanese designer, Mr. Matsui, to produce final drawings. These drawings were sent out to bid for construction and the Charles H. Tyler Company of New York City was awarded the job. Mr. Uyeda then corresponded with John D. Rockefeller Jr., apologizing for their disagreement and pointing out his concerns regarding the manner in which the new roof was being constructed. He indicated that it was not being built using true Japanese construction methods nor with a truly Japanese design. Mr. Rockefeller Jr., although usually very concerned about controlling expenditures on the teahouse, ordered construction halted

¹⁵ Charles O. Heydt, correspondence to J.D. Rockefeller Jr., 20 July 1922, Collection III, Record Group 2, Series I, Box 36, Folder 349, Rockefeller Archive Center (Sleepy Hollow, New York).

 ¹⁶ Photographs of Japanese Teahouse, Photographer(s) and date(s) not noted, Rockefeller Family Photograph Collection, Record Group 1006, Box 5, 120, 121, Rockefeller Archive Center (Sleepy Hollow, New York).
 ¹⁷ T. Uyeda, correspondence to J.D. Rockefeller Jr., 5 October 1909, Collection III, Record Group 2, Series I, Box 36, Folder 348, Rockefeller Archive Center (Sleepy Hollow, New York).

¹⁸ Charles O. Heydt, correspondence to J.D. Rockefeller Jr., 20 July 1922, Collection III, Record Group 2, Series I, Box 36, Folder 349, Rockefeller Archive Center (Sleepy Hollow, New York).

¹⁹. Uyeda, correspondence to D.F. DeLap, 29 June 1922, Collection III, Record Group 2, Series I, Box 36, Folder 349, Rockefeller Archive Center (Sleepy Hollow, New York).

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and eventually redone to Mr. Uyeda's specifications. The final product was one that carried out John D. Rockefeller Jr.'s orders to his staff that the teahouse, above all, must be authentically Japanese in style and construction.²⁰

Written records indicate that by the 1960s the Japanese garden had become overgrown and had lost some of its original character. ²¹ Nelson Rockefeller, second son of John D. Rockefeller Jr., then oversaw an extensive redesign of the Japanese gardens, employing the services of David Harris Engel, an American landscape architect who had had training in Japan. 22 The 1909 teahouse, renamed the Shrine, was moved to a different location five hundred feet to the west, on a hill in a stand of white pines overlooking the brook. A new teahouse was then built on the edge of the pond on the original site of the earlier structure. Drawings of the alterations made to the Shrine at this time indicate that the western style kitchenette and bathroom addition to the rear of the building was added under the direction of David Engel, the landscape architect and George van Geldern, the consulting architect.

²⁰ J.D. Rockefeller Jr., correspondence to Charles O. Heydt, 15 July, 1922, Collection III, Record Group 2, Series I, Box 36, Folder 349, Rockefeller Archive Center (Sleepy Hollow, New York).

²¹ D. Rockefeller Jr., correspondence to T. Uyeda, 28 June, 1949, Collection III, Record Group 2, Series I, Box 36, Folder 349, Rockefeller Archive Center (Sleepy Hollow, New York).

²² Cynthia Bronson Altman, "The Japanese Garden at Pocantico," Orientations 37, no.4 (May 2006),49.

Historical Context

The construction of the Japanese teahouse at Kykuit is related to two major developments in nineteenth century American history. The first of these was the rapid expansion of American industrial might and the subsequent consolidation of those industries into very large corporate structures. The second was the initiation and growth of contact between the United States and Japan. The part that each of these historical trends played in creating the environment in which a Japanese teahouse would be built on an American country estate is vital to placing the teahouse at Kykuit in its historical context.

The explosion of industrial endeavor in nineteenth century America led to the development of a class of very wealthy Gilded Age industrialists who initiated an opulent style of life previously unknown in the United States. ²³ This lifestyle included ownership of multiple residences, usually at least one of which would be the "country estate", a home intended for relaxation, separate from the urban environment in which business was conducted, located in a relaxing rural venue. ²⁴

Kykuit was born as the country estate of John D. Rockefeller Sr. and his wife Laura Rockefeller. Rockefeller had built the Standard Oil Company into one of the most powerful corporations in the world; he was frequently described as the richest man in the United States and was certainly one of the most famous men of his era. ²⁵ He was encouraged to build a home along the Hudson north of New York City by his brother, William Rockefeller, who had already built an estate in the region. John D. Rockefeller first explored the area looking for an appropriate site for a country home in 1893. It is reported that he climbed the stone hill of the property he would eventually buy in the village of Pocantico Hills with his son and was immediately impressed by the panoramic view of the Hudson that the site provided. The hilltop upon which he stood was called "Kahkoot" a term derived from the Dutch, meaning "lookout" and that leant its name to the estate Kykuit. ²⁶

Country estates in nineteenth and early twentieth century America typically included not only a central mansion but also a landscaped setting with spacious gardens, water features, and multiple outbuildings such as barns, garages and conservatories. Garden structures such as gazebos and pergolas were common embellishments of the landscape as were sculptures, fountains, seating arrangements, and paved walkways. ²⁷ Kykuit would eventually come to include all of these elements and more and by 1910 a Japanese garden and teahouse were added to this list of the estate's attributes. ²⁸

The addition of the teahouse and Japanese garden represented a distinct departure from the other architectural elements of the estate which had markedly European roots in form and construction. The decision to include this architectural anomaly was rooted in the growing

²³ Jackie Craven, "Great Homes of the Gilded Age," *About.com*, http://architecture.about.com/cs/housetours/a/gildedage.html (accessed June 2010).

²⁴ Stephanie Hetos Cocke, The Gilded Age Estates of Lower Merion Township, Pennsylvania: A History and Preservation Plan (Philadelphia: the University of Pennsylvania, 1987)

²⁵ Dalzell and Dalzell, *The House that the Rockefellers Built*, 10.

²⁶ Dalzell and Dalzell, *The House that the Rockefellers Built*, 33, 119.

²⁷ M. Christine Klim Doell, *Gardens of the Gilded Age:Nineteenth Century Gardens and Homegrounds of New York State* (Syracuse: Syracuse University Press, 1986), 4-15.

²⁸ J.D. Rockefeller Jr., correspondence to Mr. Mori, 2 August 1910, Collection III, Record Group 2, Series I, Box 36, Folder 348, Rockefeller Archive Center (Sleepy Hollow, New York).

mutual awareness and appreciation between Japanese and western cultures during the nineteenth and early twentieth centuries. This interaction began with the arrival of Commodore Matthew Perry in Japan in 1853. In the summer of that year Perry sailed into Edo Bay and presented Japanese ministers with a letter from President Fillmore seeking friendly relations; in 1854 the Treaty of Kanagawa confirmed the new relationship. ²⁹ Journalists accompanying Perry's expedition wrote descriptions of Japanese people, customs and architecture that were published throughout the United States, igniting a firestorm of interest in all things Japanese. Artists such as Whistler began to incorporate Japanese motifs into their work³⁰ and writers including the poet Walt Whitman praised the association of eastern and western cultures.³¹ Interest in Japan was enhanced after its participation in several international expositions, the most prominent of which in the United States was Japan's participation in the Centennial Exposition in Philadelphia in 1876. Here, Japanese crafts were displayed in a "Japanese Dwelling"; the beauty and craftsmanship of both the building and its contents was seen by thousands and widely reported across the country. Many hand-crafted Japanese items were available for sale at the Exposition's Japanese Bazaar. American artists and artisans began to admire Japanese design and art-lovers began to collect Japanese prints, bronzes, and lacquer ware. 32 Soon after in 1888, Percival Lowell wrote The Soul of the Far East, the first serious study of Japanese culture. 33 Owning Japanese "objets d'art", Japanese textiles and Japanese style furnishings soon became symbols of taste and erudition in the west. Japanese gardens and garden structures were similarly embraced by westerners as both beautiful places of contemplation and symbols of power and wealth. The World's Columbian Exposition of 1893 in Chicago furthered the American interest in Japanese architecture as several Japanese Teahouses were featured in the exposition. The architect of the gardens, William Welles Bosworth, designed, in partnership with Jarvis Hunt, the Vermont State Building. He was also present at the Exposition and therefore would have been very familiar with the work there as it featured a virtual city designed around the Beaux Arts principles of architecture that he had studied at the École des Beaux Arts.

It was against this historical background that John D. Rockefeller Jr. suggested a Japanese garden and tea house to his father. The elder Rockefeller consented, but demanded that costs be limited. The younger Rockefeller, who would himself eventually visit Japan, was determined to have a garden and teahouse that were authentically Japanese in style and construction. This imperative was overtly stated to his architect, William Welles Bosworth, ³⁴ and is apparent in every decision that was made. Even the well-documented Rockefeller devotion to frugality was given less importance than assuring that the finished project was completely Japanese. It was the

²⁹ Yale University, Beinecke Rare Book & Manuscript Library, "The Opening of Japan to the West," 1997 http://www.library.yale.edu/beinecke/orient/japan.htm (accessed June 2010).

³⁰ Yale University, Beinecke Rare Book & Manuscript Library, "Whistler and Japanese Influence," 1997 http://www.library.yale.edu/beinecke/orient/japan.htm (accessed June 2010).

³¹ Yale University, Beinecke Rare Book & Manuscript Library, "The Opening of Japan to the West," 1997 http://www.library.yale.edu/beinecke/orient/japan.htm (accessed June 2010).

³² Yale University, Beinecke Rare Book & Manuscript Library, "The 1876 Centennial Exhibition," 1997 http://www.library.yale.edu/beinecke/orient/japan.htm (accessed June 2010).

³³ Yale University, Beinecke Rare Book & Manuscript Library, "Percival Lowell and Lafcadio Hearn: Conduits of Japanese Culture," 1997 http://www.library.yale.edu/beinecke/orient/japan.htm (accessed June 2010).

³⁴ J.D. Rockefeller Jr., correspondence to Charles O. Heydt, 15 July 1922, Collection III, Record Group 2, Series I, Box 36, Folder 348, Rockefeller Archive Center (Sleepy Hollow, New York).

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objective of creating an entirely Japanese environment that led Rockefeller Jr. and Bosworth to secure the services of a Japanese designer and place the project completely in his hands.

The teahouse at Kykuit is a physical symbol, therefore, of the full flowering of the initial period of Japanese-American relations, a period which was characterized by mutual admiration and adoption of elements of each other's cultures. It is also representative of a period in American history in which rapid industrialization led to the amassing of great fortunes and the development of a new class of immensely wealthy corporate titans. Finally, it provides a window into the lifestyle and interests of the Rockefeller family, then and now one of the most prominent families in the United States.³⁵

 $^{^{35}}$ For further information on the Rockefeller Estate see documentation at HABS call number NY-6334. For documentation of other buildings on the estate see HABS NY-6334 A through E.

PART II. ARCHITECTURAL INFORMATION

A. General Statement

1. **Architectural character**: This Meiji era teahouse, now known as the Shrine, was erected between 1908 and 1910.³⁶ It is emblematic of a period in American architectural history in which there was an interest in the architectural forms and construction methods of Japan. Japanese architecture had grown in popularity in the western world during the last quarter of the nineteenth century, based upon increasing exposure of westerners to Japan and its architecture through travel and international expositions. Conversely, the teahouse is also symbolic of a period of westernization in Japan when students and artisans were sent to the west to both learn from and teach Europeans and Americans. This teahouse is, therefore, a physical remnant of the early cross-fertilization of eastern and western cultures.

Although this was not the first teahouse of its type built in the United States, it is of pure Japanese style and construction, which John D. Rockefeller Jr. assured by hiring a Japanese designer and builder, Mr. T. Uyeda, to construct the teahouse and surrounding Japanese gardens at Kykuit. Completed in 1910, the teahouse reflects design and construction styles common during the Meiji period of Japanese history, which began in 1868 and ended in 1912. During this period, Japanese architecture was often influenced by western styles; many edifices, however, like this teahouse, remained faithful to traditional Japanese forms and motifs. Aesthetically, the teahouse exhibits an eclectic mix of traditional Japanese architectural styles, but its architecture most resembles that of a Shinto Shrine.

Over its 102-year history, the teahouse has undergone several changes that reflect western practices and tastes. In 1922, the purposely-humble shingled roof was replaced with a copper roof because of water infiltration problems. This change of material, although practical, negated the building's original aesthetic of simplicity and naturalness. The new roof was designed by Mr. Matsui, an architect from Japan who was brought into the project by the primary landscape architect at Kykuit, William Welles Bosworth. Mr. Matsui utilized original drawings completed by Mr. Uyeda which he then altered to create the final design. It

³⁶ N.C. Niles, correspondence to J.D. Rockefeller, Jr., 27 January 1909 and J.D. Rockefeller Jr., correspondence to Mr. Mori, 2 August 1910, Collection III, Record Group 2, Series I, Box 36, Folder 348, Rockefeller Archive Center (Sleepy Hollow, New York).

³⁷ David Young and Michiko Young,, *Introduction to Japanese Architecture* (Singapore: Pereiplus Editions Limited,

David Young and Michiko Young,, *Introduction to Japanese Architecture* (Singapore: Pereiplus Editions Limited, 2004), 118.

³⁸ Ibid, 34-35.

³⁹ J.D. Rockefeller Jr., correspondence to Charles O. Heydt Esq., 15 July 1922, Collection III, Record Group 2, Series I, Box 36, Folder 349, Rockefeller Archive Center (Sleepy Hollow, New York).

⁴⁰ William Pearsall, correspondence to Charles O. Heydt Esq., 4 August 1922, Collection III, Record Group 2, Series I, Box 36, Folder 349, Rockefeller Archive Center (Sleepy Hollow, New York).

⁴¹ William Pearsall, correspondence to Charles O. Heydt Esq., 8 August 1922, Collection III, Record Group 2, Series I, Box 36, Folder 349, Rockefeller Archive Center (Sleepy Hollow, New York).

Later, during a redesign of the Japanese gardens by David H. Engel in the early 1960s, the teahouse was moved from its original site to a new location five hundred feet to the west, in the midst of a grove of white pines. ⁴² During this relocation several changes were made to the building. At its new site, the building was given a half-story basement, a structural element alien to Japanese architecture. A small addition, which included a bathroom and kitchenette, was also constructed. The exterior of this addition is in keeping with Japanese style and motifs; the interior, however, is Western. It includes amenities such as an electric stove, a mini-refrigerator, hot and cold running water, plumbing, electric lighting, and telephone service. All these amenities reflect western standards of comfort, and reinforce the teahouse's unique identity as a Japanese-style structure, built in the United States for American clients.

2. Condition of fabric: Visual inspection and limited probing indicate that the general condition of the building is good. It appears to be structurally sound, with the post and beam framework displaying limited deterioration. Years of thermal expansion and contraction have caused displacement of the copper roof which has allowed water infiltration to exposed underlying wooden members. In February of 2010, the condition of the roof further deteriorated when several branches from the nearby white pines fell onto it, puncturing and deforming the copper and increasing the probability of water infiltration. Additionally, the veranda, as shall be detailed below, exhibits multiple signs of deterioration of the mahogany supports, railings, posts and finials. Interior finishes, although exhibiting signs of wear, appear to be in good condition.

B. Description of Exterior

- 1. **Overall Dimensions**: The teahouse has a generally rectangular shape with a smaller rectangular addition to the west. The main façade of the building faces east; it is 21'- 6 1/8" long, exclusive of the overhanging eaves, and 24'- 0 1/4" high from the ground to the highest point of the roof. There is a veranda running the full length of the east façade which wraps around the north and south sides. This element is 3'- 9 3/8" wide on all three sides. The north and south elevations have identical dimensions; they are both 15'- 8 1/8" long, exclusive of the veranda, and 24'- 0 1/4" high. The addition on the western side, which houses the kitchenette and bathroom space, is 16'- 3 1/2" long, 8'- 3 1/4" wide and 10'- 3" high.
- 2. **Foundations**: The foundation for the structure is provided by a concrete basement, approximately 4'- 0" in height. As is typical for Japanese buildings of this type, the wooden posts of the east facing gabled porch (*karahafu*) rest on stone footings, as do the posts of the veranda (*engawa*).

Condition: On the exterior of the teahouse, both the stone footings and concrete foundations exhibit green biological growth. Otherwise the foundation system is in good condition.

⁴² Cynthia Bronson Altman, "The Japanese Garden at Pocantico," Orientations 37 no.4 (May 2006), 49.

3. Walls: As is typical in traditional Japanese wall systems, the columns and beams of the framework are the only bearing members. The remainder of the wall only supports itself. Above the shoji screens and amado door system, described in section 7a, rectangular panels of tan Japanese stucco framed by the mahogany posts and beams comprise the exterior walls of the building. Japanese stucco is typically applied over bamboo lathwork in several coats; there is, however, no available evidence to confirm the use of bamboo in the walls of the teahouse. The sections of the western wall that abut the addition have wooden panels from the foundation to a height of approximately 4' -8 3/4"; above these are mahogany framed stucco panels. In addition, there are wooden boards above the stone foundation on the three sides of the western addition itself, surmounted by framed stucco panels.

Condition: The walls of the Japanese teahouse are in fair condition. Black-colored soiling is evident on several of the stucco panels, the most severe of which is on the north side of the building. In addition, the stucco above each of the door compartments (*tobukuro*) is stained green by the patina of copper flashing which is over each compartment. Directly above the tobukuro of the north wall, a piece of stucco approximately 3" x 3" is missing. In several areas, the stucco panels exhibit hairline cracking and mild chipping.

4. **Structural system, framing:** The teahouse uses traditional Japanese post and beam timber structural framing. The wood is mahogany, with either a varnished or clear natural stained finish. As is typical in traditional Japanese construction, the wooden framing begins with the erection of a central pillar, which is then connected to other structural members with intricate joints. The central pillar, unlike all other structural elements which are of dimensional lumber, maintains the natural shape of the wood. The joinery between members is Japanese mortise and tenon, a system which uses slats and grooves to interlock the individual pieces. Vertical members of the structure rest either on concrete under the central structure or on stone footings under the veranda and gabled porch.

Condition: Most structural elements appear to be in good condition. Based on the condition of the copper roof and the recent damage which it suffered, a more detailed analysis with moisture detection equipment would be desirable in structural areas abutting it.

5. Porches, stoops, balconies, porticoes, bulkheads: A veranda, known in Japanese as an engawa, extends the full length of the east façade and wraps around to encompass both the north and south sides of the building. The engawa consists of an elevated deck of mahogany planks laid perpendicular to the walls. Veranda floor planks are held together by tongue-and-groove joints (hone-sane) and supported by the main structure and by underlying wooden posts resting on stone footings. Three tiers of horizontal railings are held in place by vertical posts. The corner posts of the engawa are crowned by onion-shaped finials. Unlike the rest of the structure, the engawa, and its railings are held together in part by metal nails in addition to mortise and tenon joints. There is a gabled entry porch on the northern end of the eastern façade. This porch has a karahafu style gable, which has a characteristic undulating curve at the top. The porch roof is also clad

in copper in the Hangawari buki style.

Condition: The overall condition of the veranda railings is poor. Deterioration caused by rot, insect activity and mechanical damage from the February 2010 storm has seriously compromised the integrity of the wood and has made the railings loose and unstable. Posts and rails under the veranda also show multiple signs of deterioration including visible wood loss. The damage to the veranda is widespread, involving all three sides. On the top rail, horizontal cracking is systemic. On the bottom rail, beneath the floor boards, erosion and chipping of the wood is systemic. The finials of the end posts all exhibit cracking. Displacement of the posts and beams of the railing is evident in several locations. Circular holes, possibly caused by insect infestation, are evident on several locations along the top railing. Green biological growth is a systemic condition, and is most severe on the deck planks and on the bottom of the posts near where they rest on the stone footings. Evidence of prior Dutchman repairs is seen where the rails meet the end post at the south-east corner of the engawa.

6. Chimneys: N/A

7. Openings

a. Doorways and doors: Exterior doors include both sliding shoji screens and solid wooden sliding doors (amado). There are six shoji screens on the eastern façade. Each of the shoji screens are 5'- 10 3/4" x 2'-9 3/4". Each has a mahogany lattice frame holding upper and lower panels of translucent laminated paper separated by two rectangular frosted glass panels at the screen's midpoint. Each of the laminated paper panels is held in place by a thin, rectangular grid work of wood strips. The screens slide on a wooden track known as a kamoi which runs the length of the façade. There are also six solid mahogany sliding doors (amado), each built of vertical mahogany planks, which slide over the shoji screens in inclement weather; each is 5'- 11 3/16" x 2'- 11 3/8". There is a compartment (tobukuro) to contain the amado when they are not in use. This 7'- 2 3/8" x 3'- 3" mahogany compartment is located at the southern end of the eastern façade.

The north and south façades each have four shoji screens and four amado doors in identical design to those on the eastern facade. On both the north and south elevations there is an amado compartment (*tobukuro*) at the westernmost end of those façades. No doors exist on the western side of the building which houses the bathroom/kitchenette addition.

Condition: Both the shoji screens and the wooden amado doors are in good condition. There is some difficulty in sliding some of these elements but this appears to be more a defect of the tracks than of the doors themselves. On the exterior sides, the bottoms of the amado doors show discoloration, presumably due to water damage and weathering.

b. Windows and shutters: There are two windows in the teahouse. They are located at the north and south ends of the bathroom/kitchenette addition. These windows have different dimensions; the southern one is 2' - 2 1/2" x 2' - 3 1/2", the northern window is 3'-3" x 2' - 3". Both windows are rectangular in shape with two

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rectangular glass lights that slide horizontally over each other to open. Vertical wooden slats are attached to tracks outside of each window and can slide horizontally along them to obscure or reveal the windows.

Condition: The windows are in good condition.

8. Roof

a. **Shape, Covering:** The hipped and gable roof (*irimoya*) has a ridge and gables on the upper part and a hipped roof on the four sides on the lower part. The gable part of the roof covers the central core while the lower hipped section provides the eaves that cover the surrounding veranda. Traditional Japanese roof construction methods limit the strength needed in the rafters, allowing the rafters of the shrine to be bent up at the corners. On the top crest of the gabled section of the roof is a ridge pole that runs north to south. Two ornamental plates known as shibi cap both ends of the ridge pole.

The roof of the teahouse was originally made of cedar shingles as was true of many traditional Japanese structures reflecting the Japanese preference for natural materials. Continuing problems with moisture penetration, however, resulted in replacement of the shingles with a copper roof in 1922. The design of the copper roof simulates the hongawara buki style of clay tile roofing. In this style, tubular-shaped tiles are fit tightly over the seams of slightly curved tiles. On the teahouse, sheets of copper were folded to simulate larger sections of curved and tubular tiles. The ends of the tubular elements are capped with floral rosettes and the ends of the curved "tiles" are decorated with similar floral imagery.

There are secondary roofs on the eastern-facing porch and on the western facing kitchen/bathroom addition. The porch roof, as described in Section B5, is also copper with similar decorative design and an undulating curved karahafu gable. The kitchen/bath addition has a single-sided shed roof with grey clay tiles arranged in the hangawari buki mode. On the addition, the ends of the tubular elements, instead of having the flower petal design that is on the main roof, are decorated with radiating spirals.

Condition: In February 2010, the roof was struck with branches from the nearby white pines, which made several holes in the copper roof. Many of the rounded copper tiles were flattened and deformed. Repairs to the damaged areas of the roof were completed in December 2010 by contractors Mortelliti Inc. under the direction of architect Geoffrey Moussas. In addition thermal expansion and retraction has caused displacement of the copper in many places. Black-colored soiling is evident in cavities throughout.

b. **Cornice, eaves:** There are triangular carved and pierced mahogany medallions inside the gable of the north and south elevations (*gegyo*). These ornamental pieces are commonly used in Japanese shrine and temple architecture. Often, as in this case, the gegyo represents a fragmented single motif of foliage and has extended side fins that continue the central motif, creating a triangular shape that mimics the gable.

The eaves of the lower roof create an overhang that protects the veranda and delicate shoji screens from the elements. The eaves extend approximately 5' - 2 1/2" from the walls on all sides.

Condition: All of the eaves and the decorative medallions at north and south

rooflines appear to be in good condition.

c. Dormers, cupolas, towers: N/A

C. Description of Interior

- 1. **Floor plans:** Floor plans of the teahouse are included in Part III of this submission. As they indicate, a central room (*moya*), which can be utilized as two spaces by the use of sliding interior screens (*fusuma*), occupies the majority of the space in this single storied structure. There is also an adjacent secondary space (*hisashi*) at the west end of the building that houses kitchen and bathroom facilities. The primary space is separated by four traditional sliding panels (*fusuma*) which stretch from east to west, creating separate spaces to the north and south when closed. The kitchen and bath area occupies a space that measures 14'- 11" x 7'- 7 3/4". The undivided main space measures approximately 20'- 6" x 11'- 6".
- 2. **Stairways:** There are no interior stairways. There is, however, a trap door in the floor of the kitchen which leads to the half-story concrete basement. The basement is accessed by a ladder, not by stairway.

Condition: N/A

- 3. Flooring: The floor of the main room is mahogany planks, over which fourteen tatami mats of tightly woven rice straw with black bindings are laid. The floor in the kitchen/bath space is covered with 6" square tan ceramic tiles laid in a lighter grout. Condition: There is a patch of white discoloration of the mahogany planks adjacent to the central pillar of the South wall, indicating likely water infiltration in this area. In the tiled kitchen/bath area the grout is now soiled in many areas. The tiles themselves are in good condition, devoid of cracks or staining.
- 4. Wall and ceiling finish: The walls of the main space are largely comprised of shoji, translucent paper-covered sliding panels. Some of the wall space of the main room is covered in grass cloth. In the adjacent kitchen/bathroom space the bathroom walls are covered in 1 inch square tan tiles, which also cover the ceiling in the shower/tub enclosure. The kitchen wall over the sink is covered in the same 1 inch tiling. Other walls in the kitchen are covered in grass cloth panels. Significant amounts of kitchen wall space are occupied by cabinetry with flat, unadorned single-plank mahogany doors.

The ceiling in the main room (*moya*) is made of mahogany boards with a varnished finish laid east to west under exposed rafter beams laid in a north to south orientation. The ceiling in the kitchenette/bath addition is similarly mahogany planking, but is laid over rather than under the rafters.

Condition: All walls are in generally good condition. The grass cloth has delaminated from the wall in several locations. In other areas the grass cloth exhibits bulging and staining. The grout on the wall tiling in bath and kitchen exhibits minor discoloration but the interior walls and their coverings are in generally sound condition. Ceilings, similarly, are in generally good condition.

5. Openings

a. **Doorways and doors**: The two spaces of the interior are separated by a wall comprised of four sliding panels known as fusuma which are surmounted by transoms called ramma. The fusuma have light wooden frames stiffened by wooden strips arranged in a rectangular pattern similar to that of the exterior shoji screens, but these frames are covered on both sides by golden damask-patterned silk framed by black lacquered wooden trim. Both sides of the fusuma are decorated with central silk panels which are hand painted, one side with landscapes and the other with birds. The fusuma slide along tracks set in the floor and in the bottom of the overhead transoms, thus dividing the interior space into two separate rooms.

There are several other doors in the addition; a sliding wooden pocket door that separates the western addition from the northern main room, a similar pocket door that separates the kitchen from the bathroom and three additional sliding doors on the western end of the addition that obscure mechanical systems and a built-in vanity. All doors in the addition have grass cloth covering over wooden cores.

Condition: The fusuma display multiple signs of wear including delamination and chipping of the black lacquer from the frame in many places, general soiling of the silk, several small rips in the silk, and a small area of white discoloration on the south side of the second eastern-most panel. Deformation of the fusuma and the track upon which it slides has caused difficulty in moving them. The paintings on the fusuma appear to be in good condition. The doors in the addition are also in good condition.

b. **Windows**: There are only two windows in this building. Both of these are located in the secondary bath/kitchenette space, on the north and south ends. Each has two rectangular lights with metal surrounds. The interiors of these windows are framed very simply, with plain mahogany stripping.

Condition: The windows are both in good condition.

6. **Decorative features and trim:** On the west wall of the room are two recessed alcoves, known as tokonoma. Traditionally, these recesses would have held objects of artistic importance, such as scrolls, bonsai or an arrangement of flowers. Inside the recess of each of the tokonoma are irregularly placed mahogany shelves. The lowest shelf in the tokonoma on the north side of the west wall has sliding doors covered with dark patterned silk. Above the tokonoma are deeply recessed storage shelves with grass cloth covered shutters. In addition there are two decoratively carved rectilinear mahogany-grilled transoms above the fusuma known as ramma.

Condition: Both the shelving and the ramma are in good condition.

7. **Hardware:** There is very little decorative hardware in the teahouse; such ornamentation is limited to the hand pulls on the four sliding fusuma panels and a few decorative rosettes called rokuyou that are placed on the mahogany beams. The rounded rectangular hand pulls on the fusuma are made of metal with a brown patina and embossed with naturalistic tableaus that are consistent with the subjects of the painted fusuma panels. There are eight of these pulls, one on either side of each panel. The decorative rosettes on the beams (*rokuyou*), of which there are five in the north room and four in the south

room, take the traditional Japanese form of a stylized, eight petaled flower with slightly protruding center. These rokuyou are made of metal with a deep brown patina. **Condition:** All fusuma hand pulls are in good condition. One rokuyou on the northern wall of the north room is missing.

8. Mechanical equipment

a. **Heating, air conditioning, ventilation:** The building is heated with propane. There are three vents on the ceiling of the building, two in the main space, and one in the threshold between the north room and the addition. Furthermore, two climate control boxes are attached to the western wall of the main room in the tokonoma space.

Condition: Unknown

b. **Lighting**: There are six electrical lighting fixtures built into the ceilings of the kitchen and the bath.

Condition: Currently only half of the lights work.

c. **Plumbing**: The building was built with running water and plumbing. These utilities were connected to the building through pipes in the basement of the kitchenette/bath space at the west end of the building. There are sinks in the kitchen and bath as well as a tub/shower combination. There is also an electric water heater, located in the western addition.

Condition: Water to the teahouse has been shut off so it is not possible to assess whether the plumbing fixtures and lines are in working order.

9. **Original furnishings:** The only non-fixed furnishings in the building at present are the fourteen tatami mats in the two main spaces and a small refrigerator.

Condition: The tatami are in fair condition and exhibit minor fraying and deformation. The refrigerator is fully functional.

D. Site

1. **Historic Landscape Design:** The gardens surrounding the teahouse are an integral element of its architecture. These gardens were originally designed in 1908 by the Japanese artisan Mr. T. Uyeda, later with the participation of Mr. Takahashi, under the general supervision of William Welles Bosworth. ⁴³ Unfortunately the original design was never committed to paper, as was typical of Japanese garden plans of the time. What is certainly known, based upon photographic evidence and the written records provided by Bosworth and by his sponsor, John D. Rockefeller Jr., is that there was a strolling garden that made use of the terraced areas west of the main house and that the Shrine was, at that time, sited directly on the bank of a pond surrounded by blue spruce trees. The pond was edged with massive boulders and stocked with koi fish. There were at least two wooden bridges that spanned a brook created by Mr. Uyeda, later assisted by the Japanese gardener Mr. Takahashi, and a variety of Asian stone lanterns and other stone ornaments

⁴³ Altman, "The Japanese Garden at Pocantico", 49.

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along the paths in the garden. In 1922 the original wooden bridges were replaced with stone bridges. 44

By the beginning of the 1960s the Japanese garden was described as overgrown, with many original elements obscured. After the death of John D. Rockefeller Jr. in 1960, Nelson Rockefeller decided to revive the Japanese gardens and hired David H. Engel, a landscape architect who had trained in Japan, to create a new design for the Japanese gardens. The elements that surround the teahouse today are the result of Engel's vision of the gardens. 45 During this period the teahouse was moved from the bank of the pond to its current location in a grove of white pines and renamed the Japanese Shrine. A new teahouse, designed by Junzo Yoshimura, was erected on the site of the original teahouse within the redesigned garden. The Shrine now rests on a terrace formed by a stone retaining wall which conforms to the natural topography of the area. To the east is a stream which runs south to north out of the nearby pond and terminates in a pump pit. This pond, southeast of the Shrine, contains an island accessible by large stepping stones. Around the pond flora native to Japan and the Far East, including Japanese Pieris, Japanese Maple and English-Japanese Yew are planted. A granite slab is set as a bridge over the stream roughly 30' to the South of a field stone path that runs east to west between the steps of the retaining wall to a large American sycamore tree east of the Shrine. In the vicinity of the bridge are several rhododendrons and azaleas. Two stone lanterns are placed in on either side of this path on the approach to the building. A third lantern is placed north of the teahouse.

E. Outbuildings: N/A

⁴⁴ J.D. Rockefeller Jr. and T. Uyeda, memo prepared by both, 31 July 1922, Collection III, Record Group 2, Series I, Box 36, Folder 349, Rockefeller Archive Center (Sleepy Hollow, New York).

⁴⁵ Altman, "The Japanese Garden at Pocantico", 49.

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<u>Japanese Architectural and Construction Terms</u>

1. Amado: Heavy wooden doors or shutters that can be closed in inclement weather

2. Ashigatame: floor beam

3. Daikoku-bashiri: sacred central pillar.

4. Daiku: Carpenter

5. Dodai: Ground sill

6. Engawa: Elevated veranda. also known as a nure'en

- 7. **Fusuma**: opaque paper sliding panels acting as room partitions and room door. Like the shoji these have light wooden frames stiffened by wooden strips arranged in a rectangular pattern, but these are covered on both sides by heavy opaque paper or silk and sometimes framed all around by a lacquered wooden ledge *Fusuma* slide along tracks set in the floor and transom, thus dividing the interior space into separate rooms. The surfaces of *fusuma* are often decorated with paintings.
- **8. Gegyo**: An ornamental piece which covers the end of a ridge beam on shrine and temple architecture. Also used on common houses. Usually a fragmented single motif of foliage or whirlpool. Many gegyo have side fins.
- **9. Hongawari Buki** In traditional Japanese architecture, clay roofing tiles consisting of half-round tiles (**marugawara**) and broad, slightly curved, flat tile (**hiragawara**) laid alternately; the eave-end tiles are capped and decorated.

10. Hashira: Column

- **11. Hikite**: metal plates with depressed centers used for pushing and pulling sliding doors. Often enameled. (Young pg. 100)
- **12. Hisashi**: As more commonly used, the term indicates the <u>eaves</u> of a roof, that is, the part along the edge of a roof projecting beyond the side of the building to provide protection against the weather. These eaves typically cover the veranda (engawa). Also indicates spaces peripheral to main room or moya.

13. Hone-sane: Tongue/groove joint

14. Iri-moya: Hipped and gabled roof

15. Kamoi: Upper sliding track

- 16. Karahafu: is a type of gable with a style peculiar to Japan. The characteristic shape is the undulating curve at the top. This gable is common in traditional architecture, including Japanese castles, Buddhist temples, and Shinto shrines. Roofing materials such as tile and bark may be used as coverings. The face beneath the gable may be flush with the wall below, or it may terminate on a lower roof. ...this type of roof with undulating bargeboards
- 17. Kaya: Reed used in thatching
- 18. Ken: Bay or space between the pillars of a traditional building
- **19. Komainu**: statues of lions or lion dogs that guard a shrine (also known as shishi)
- 20. Mado: Window areas
- **21. Motra**: Traditional style building construction in the modern period, after 1868.
- 22. Moya: Main room
- 23. Neda: floor joist
- **24.** Nuki: horizontal tie members in between the columns
- **25. Ramma**: Clerestory window; also a louvered transom or decorative carved grill above an interior fusuma. A horizontal crosspiece over a door or between a door and a window above it, or the horizontal dividing bars of the window itself.
- 26. Rokuyou: Flower shaped ornamentation used to cover bolts or other unsightly hardware
- **27. Sando:** Approach to a shrine, lined with trees or lanterns
- **28. Shibi:** is a Japanese ornamental tile set on both ends of the ridgepole that tops a shingled roof. The kanji for the word mean "kite" and "tail" respectively. Because it resembles a shoe, it is sometimes also called a **kutsugata**, meaning "shoe shape".
- **29. Shikkui**: plaster made of lime, straw or sand, glue and water to which color is sometimes added.
- **30. Shoin** style: Originally an office that developed in the Muromachi period, into a formal room with features such as a tokonoma, built-in desk, and staggered shelves. A style of Japanese architecture that developed during the Muromachi Period—roughly between the 14th and the 16th century—characterized by the use of *tatami* mats, square columns, sliding doors, coffered ceilings, and the integration of spaces in which to display art. Literally, quot; book room" or a "study."

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- **31. Shoji**: Translucent paper-covered sliding panel. *Shoji* are used extensively around the periphery of traditional Japanese buildings in order to allow light to enter the rooms.
- 32. Sori: the curved eaves line of a Japanese roof
- **33. Sukiya** is a Japanese word used as synonym for *chashitsu*, referring to an architectural space designed for *chanoyu* (Japanese tea ceremony). The so-called sukiya style (*sukiya-zukuri*), which dates from seventeenth century Japan, is generally regarded as one of the culminations of Japanese architecture. Elements that one will find in a traditional room in sukiya style are shoji, fusuma, tatami and tokonoma.
- **34. Tatami**: Thickly woven mats of rice straw and rushes used to cover the floor in traditional Japanese houses. The three main constituent parts of a tatami are:
 - toko (floor), thick straw under-part
 - omote (surface), thin reed cover
 - fuchi or heri (edge), cloth tape binding
- **35. Tobukuro:** the shutter compartment for the amado doors.
- 36. Tokonoma: Recessed alcove
- **37. Toko-bashira**: The column attached to the tokonoma which is a natural stem of irregular form. The toko-bashira is typically made of a different material from the columns in the other rooms.
- 38. Tsurizuka: hanging post
- **39.** Wabi-sabi: aesthetic concept that refers to the austere taste associated with the tea ceremony. Sabi (the patina that comes with age) Wabi (things that are simple, natural and imperfect).